

In the claims:

1-6. (cancelled)

7. (currently amended) A method for detecting a format of a digital video data sequence, comprising:

producing a normalized field difference sequence based on a comparison of two fields in a sequence of data fields wherein producing the normalized field difference sequence includes:

segmenting a first field of digital video data into a first plurality of pixel groups;

segmenting a second field of digital video data into a second plurality of pixel groups;

producing a plurality of pixel group scores based on differences between corresponding pixel groups in the first plurality of pixel groups and the second plurality of pixel groups; and

determining a field difference metric between the first field of digital video data and the second field of digital video based on the plurality of pixel group scores;

comparing the normalized field differences sequence with at least one test vector; and determining whether the received sequence of data fields is film mode or video mode based on the comparison of the normalized field difference sequence with the at least one test vector wherein the at least one test vector includes a plurality of film basis vectors and a plurality of video basis vectors, wherein the plurality of film basis vectors have zero assigned to each film basis vector location representing a repeat field, and one assigned to each film basis vector.

8. (cancelled)

9. (currently amended) The method of claim 7, wherein the first plurality of pixel groups include a first plurality of blocks, the second plurality of pixel groups include a second plurality of blocks, and the plurality of pixel group scores includes a plurality of block scores.

10-11. (cancelled)

12. (currently amended) The method of claim 7 8, wherein determining whether the received sequence of data fields is film or video further includes comparing the normalized field difference sequence to a plurality of film splice vectors.

13. (original) The method of claim 12, further comprising determining a phase index based on the comparison between the normalized field difference sequence and the plurality of film splice vectors.

14. (currently amended) The method of claim 7 8, further comprising determining a phase index based on the comparison of the normalized field difference sequence with the at least one test vector.

15. (currently amended) ~~The method of claim 14, further comprising:~~ A method for detecting a format of a digital video data sequence, comprising:

producing a normalized field difference sequence based on a comparison of two fields in a sequence of data fields wherein producing the normalized field difference sequence includes:

segmenting a first field of digital video data into a first plurality of pixel groups;

segmenting a second field of digital video data into a second plurality of pixel groups;

producing a plurality of pixel group scores based on differences between corresponding pixel groups in the first plurality of pixel groups and the second plurality of pixel groups; and

determining a field difference metric between the first field of digital video data and the second field of digital video based on the plurality of pixel group scores;

comparing the normalized field differences sequence with at least one test vector; and

determining whether the received sequence of data fields is film mode or video mode based on the comparison of the normalized field difference sequence with the at least one test vector;

determining a phase index based on the comparison of the normalized field difference sequence with the at least one test vector;

identifying field pairs based on the determination of film mode and video mode, and further based on the determination of phase index;

setting repeat first field flags to selected fields in the sequence of data fields based on the determination of film mode and the video mode, and further based on the determination of phase index; and

setting progressive frame flags to selected fields in the sequence of data fields based on the determination of film mode and video mode, and further based on the determination of phase index.

16. (currently amended) A method for detecting a format of a digital video data sequence, comprising:

producing a normalized field difference sequence based on a comparison of two fields in a sequence of data fields;

comparing the normalized field difference sequence with a plurality of film splice vectors; and

determining whether the sequence of data fields is film mode or video mode based on the comparison of the normalized field difference sequence with the plurality of film splice vectors;

determining a phase index based on the comparison between the normalized field difference sequence and the plurality of film splice vectors;

identifying field pairs based on the determination of film mode and video mode, and further based on the determination of phase index;

setting repeat first field flags to selected fields in the sequence of data fields based on the determination of film mode and video mode, and further bases on the determination of phase index; and

setting progressive frame flags to selected fields in the sequence of data fields based on the determination of film mode and video mode, and further bases on the determination of phase index.

17-21. (cancelled)

22. (new) A computer readable medium encoded with a program for detecting a format of a digital video data sequence, the program performing the steps of:

producing a normalized field difference sequence based on a comparison of two fields in a sequence of data fields wherein producing the normalized field difference sequence includes:

segmenting a first field of digital video data into a first plurality of pixel groups;

segmenting a second field of digital video data into a second plurality of pixel groups;

producing a plurality of pixel group scores based on differences between corresponding pixel groups in the first plurality of pixel groups and the second plurality of pixel groups; and

determining a field difference metric between the first field of digital video data and the second field of digital video based on the plurality of pixel group scores;

comparing the normalized field differences sequence with at least one test vector; and determining whether the received sequence of data fields is film mode or video mode based on the comparison of the normalized field difference sequence with the at least one test vector wherein the at least one test vector includes a plurality of film basis vectors and a plurality of video basis vectors, wherein the plurality of film basis vectors have zero assigned to each film basis vector location representing a repeat field, and one assigned to each film basis vector.

23. (new) A computer readable medium encoded with a program for detecting a format of a digital video data sequence, the program performing the steps of:

producing a normalized field difference sequence based on a comparison of two fields in a sequence of data fields wherein producing the normalized field difference sequence includes:

segmenting a first field of digital video data into a first plurality of pixel groups;  
segmenting a second field of digital video data into a second plurality of pixel groups;  
producing a plurality of pixel group scores based on differences between corresponding pixel groups in the first plurality of pixel groups and the second plurality of pixel groups; and  
determining a field difference metric between the first field of digital video data and the second field of digital video based on the plurality of pixel group scores;  
comparing the normalized field differences sequence with at least one test vector; and  
determining whether the received sequence of data fields is film mode or video mode based on the comparison of the normalized field difference sequence with the at least one test vector  
determining a phase index based on the comparison of the normalized field difference sequence with the at least one test vector;  
identifying field pairs based on the determination of film mode and video mode, and further based on the determination of phase index;  
setting repeat first field flags to selected fields in the sequence of data fields based on the determination of film mode and the video mode, and further based on the determination of phase index; and  
setting progressive frame flags to selected fields in the sequence of data fields based on the determination of film mode and video mode, and further based on the determination of phase index.

24. (new) A computer readable medium encoded with a program for detecting a format of a digital video data sequence, the program performing the steps of:

producing a normalized field difference sequence based on a comparison of two fields in a sequence of data fields;

comparing the normalized field difference sequence with a plurality of film splice vectors;

determining whether the sequence of data fields is film mode or video mode based on the comparison of the normalized field difference sequence with the plurality of film splice vectors;

determining a phase index based on the comparison between the normalized field difference sequence and the plurality of film splice vectors;

identifying field pairs based on the determination of film mode and video mode, and further based on the determination of phase index;

setting repeat first field flags to selected fields in the sequence of data fields based on the determination of film mode and video mode, and further bases on the determination of phase index; and

setting progressive frame flags to selected fields in the sequence of data fields based on the determination of film mode and video mode, and further bases on the determination of phase index.